



THOMAS G. NEWMAN,
EDITOR.

Vol. XXII. Sept. 1, 1886. No. 35.

Railroad Rates for the round trip from Chicago to Indianapolis to attend the National Convention, are now under consideration, and we hope in our next issue to be able to state the definite amount and the method of obtaining them. The "pool" now has it under consideration. Meanwhile let every one who can do so, make arrangements to go to the Indianapolis convention. The programme will soon be issued, and all can obtain a copy by applying to the secretary, Mr. Frank L. Dougherty, at Indianapolis, Ind.

The State Fair, at Chicago, will open on Monday, Sept. 6, and continue during the week. It promises to be very largely attended, and the exhibits will be more magnificent than ever. There will no doubt be a good display of honey. We hear of several bee-keepers who expect to make an exhibit, and there are many others of whom we have not heard. The editor of the AMERICAN BEE JOURNAL has been appointed one of the judges in the Bee and Honey Department. For many years past bees and honey have been unknown at our State Fair, and we are glad to see that there is to be a change this year.

The Percheron Horse Show, which is to be held under the auspices of the American Percheron Horse Breeders' Association, will be a grand exhibit. The premiums offered by the State Board of Agriculture and the Percheron Association amount to about \$7,000. It is claimed that nearly 300 fine bred Percherons will be exhibited by about 50 breeders in the United States and Canada, and that in addition thereto there will be several hundred grade Percherons on exhibition. It will be an immense show in itself; and when it is remembered that all other draft horses are to be exhibited it will be seen that this will be a most noble horse exhibition.

Mr. Reuben Havens, of Onarga, Ills., made an excellent exhibit of honey at the Fair at Watseka, Ills., and the Watseka Times notices it thus:

One of the most interesting exhibits in the domestic department is that shown by Reuben Havens, an apiarist of considerable repute, from Onarga. The extracted honey shown in neat glass jars was so clear that some good housewives accustomed to the old methods of honey getting, seemed doubtful that this article was strictly pure, but it is. Mr. Havens has made a study of bee-keeping and handling the honey, and his honey (both extracted and in the comb) is clear and enticing to view and to palate.

English Royalty and the Bees.—The Southampton Bee and Honey Show was visited by the Princess Beatrice and Her Royal Consort, Prince Henry of Battenberg. The Princess has for some years been the honorary President of the "Hampshire and Isle of Wight Bee-Keepers' Association," and upon the occasion of her marriage last year, the Society made her an appropriate present in the form of a diamond brooch, shaped like a bee, eliciting from Her Royal Highness a graceful acknowledgement, which, no doubt, resolved itself into a ready acceptance of the invitation afterwards tendered her by the Association to come to the meeting at Southampton and distribute the prizes gained in the exhibition of bees and bee-implements.

The ancient town of Southampton was in gala attire; military display, triumphal arches, banners, flags, flowers, processions, enthusiasm and cheering being indulged in.

The Rev. E. H. Bellairs escorted the royal party, consisting of the Princess Beatrice and her husband, Prince Henry of Battenberg, through the exhibition of honey and bee-implements, and explained the uses of the latter. Her Royal Highness expressed herself extremely interested in the display of honey, particularly with the honey-comb design exhibited by a cottager named Woodley, of Newbury, consisting of the letters "H. R. H." and "P. R. B." worked in comb by the bees. Her Royal Highness compared the specimens of honey with some she had seen in the Riviera, and showed that general knowledge on this and other subjects common to the members of the Royal Family.

At the door of the tent the honorable secretary presented Mrs. Bellairs, with whom Her Royal Highness shook hands, and from whom she received a section of comb honey, framed in an elegant silver case, and also a copy of the book entitled, "Modern Bee-Keeping," an elegant volume bound in morocco. The honorable secretary then conducted the royal guests to the beehive, where the Rev. W. Medlicott, of Swanmore, Bishop's Waltham, gave a short lecture, pointing out how unnecessary it was to destroy the bees in order to obtain the honey, and how very much more profitable the modern methods of bee-management were as compared with the old fashioned way of keeping them merely in straw hives.

The bees were then driven from an old-fashioned straw-skep by Mr. Evan Maberly, of Christchurch, and Mrs. Bellairs, having obtained the Royal permission, then entered the arena and assisted in the driving, in order to demonstrate the facility with which women as well as men may practice the new industry—for a new industry it is as practised under the rules and recommendations of the modern bee-keepers' associations. Mr. Maberly having driven the bees into an empty skep, captured the queen, which was placed in a bottle for inspection by their Royal Highnesses, who took the greatest interest in the proceedings.

It was remarked that the Princess, in compliment to the occasion, wore as her only ornament the diamond-bee brooch presented to Her Highness by the bee-association on the occasion of her marriage.

A Royal reception and luncheon, followed by toasts, speeches, etc., was indulged in,

and as all the arrangements seemed to be perfectly made, the whole affair was a magnificent success.

The distribution of prizes was conducted in this manner: The secretary called the successful competitors, who filed past the elevated dais, His Royal Highness Prince Henry putting the prizes into silk bags, bearing in gold letters "Presented by H. R. H. Princess Beatrice, 1886," handing these to the Princess, who duly presented them to the fortunate winners amid the plaudits of the visitors. When it came to the turn of Mr. Bellairs, who had succeeded in carrying off the first prize for extracted honey open to all England, the Prince and Princess cordially congratulated him with a shake of hands, and the Rev. Walter Medlicott also came in for a large share of public applause.

The band played the National air, and the Royal visitors were escorted back to the pier, where the Royal yacht awaited them, and took them back to Osborne Palace.

The Bee and Honey Show of Scotland was held at Dumfries, on July 27 to 30, 1886. The weather was very cold; on the morning of the 27th it was 32° on the ground; on the 29th it rained nearly all the day, making things very disagreeable. The show was a success, owing to the energy of the honorable secretary, Major R. J. Bennett. That gentleman devotes much time and spares no expense for the purpose of helping on the working classes to better their condition by the aid of bees. The exhibits were numerous, the entries being 150. Some of them reflected great credit on the owners for their enterprise in being able to bring forward such grand displays in such an untoward season.

Mr. E. McNally, of Rutherglen, exhibited a classified display of dried and fresh flowers and plants, amounting perhaps to 1,000 specimens, including seeds of many of the same, together with the dates of their time of flowering and percentage of honey yield. The exhibit consisted of two large volumes filled with them and others mounted on card-board. These, together with the fresh flowers, nearly covered one side and end of the exhibition tent, which contrasted well with the opposite side, and its beautiful display of honey and honey-comb, tiered to a great height on graduated steps, setting it off to great advantage.

The Indiana State Fair and Exposition will be held in Indianapolis during the week commencing Sept. 27, 1886. Premium Lists can be obtained of Alex. Heron, Secretary, Indianapolis, Ind. We presume there will be a good bee and honey show, as usual. Such exhibitions are now indispensable in this "era of progress" and no enterprising farmer or mechanic can afford to remain away from the Indiana State Fair the week commencing Sept. 27. Railroad rates are now uniform for all the Western State Fairs.

E. L. Gould & Co., of Brantford, Ont., have sent us samples of their varnished Honey Labels, with price-list. They are nice and very attractive.



AND

Replies by Prominent Apiarists.

[It is useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Is the Locality Overstocked?

Query, No. 298.—I have been a successful bee-keeper for seven years, and am in just an average locality. By counting mine I find there are 500 colonies of bees within a radius of 3 miles. Now I think that these bees have cut my average down one-half. Do you not think so? Would it ever be profitable with so many bees so close?—Subscriber, Ind.

I agree with "Subscriber." It would probably be much more profitable if less bees were kept.—W. Z. HUTCHINSON.

Your locality is overstocked. It is very doubtful if your bees will prove profitable, unless large areas are sowed to clover and buckwheat.—J. P. H. BROWN.

I should prefer to have fewer bee-keeping neighbors. It is possible that in very excellent seasons you would do well despite the ill surroundings.—A. J. COOK.

It is impossible in the short space allotted, to answer the question. It is one of great importance to many of us. I should think that the 500 colonies in some seasons might overstock so as to cut down the average yield of surplus, and in other seasons I think they would not.—H. R. BOARDMAN.

1. They have tended to decrease your yield without doubt. 2. Only in extra good seasons if the sale of honey is the only income from them.—G. M. DOOLITTLE.

Localities differ so much that it would be impossible to give a correct answer. In my locality it would be all we should want. I have read of places where three times 500 colonies were kept, and all did well.—H. D. CUTTING.

Conundrums are always in order in this department, and this is as good as any. All answers will be theoretical, but in my opinion no difference will be found if all the 500 colonies mentioned should be moved 100 miles away. In an average locality 1,000 colonies so situated in a good season would gather as much honey individually as though there were but 100; in a poor season each would gather as little. Lest I may be accused of claiming to "know it all," I will say the above is simply a matter of opinion.—J. E. POND, JR.

You are touching upon a subject that must come prominently to the front if honey-producing is to become a permanent business. Just how much your average has been cut down depends upon your numbers. If you kept 400 and others 100 you are not cut down much by them; but if you had 100, and 400 more have been added, one-half is probably gone, and it will not pay you to stay.—C. C. MILLER.

I guess there are too many bees in your field. There are certainly too many that belong to others to make it an object for you to make the business a specialty in that location.—JAMES HEDDON.

At the time when your surplus honey season is on hand I do not "think so." I doubt if your average is cut down at all. I am in a like situation with yourself, but I was the first to try bees here, and once had practically an open field; since "my field" has been heavily stocked with bees, I obtain about the same surplus that I did before. But I believe my bees suffer loss on account of "overstocking" at such times, as there is but little honey in the fields to be gathered, to keep up breeding and to prevent shrinkage of stores.—G. W. DEMAREE.

I believe that a good white clover district as this has been the past season, under the influence of frequent rains, cannot be overstocked by 1,000 colonies of bees in one locality. We have still (Aug. 17) much clover bloom, but for the greater part of the season there never was known to be so much white clover heretofore. The bees were surfeited with nectar, and comb honey could be left for days any where without being molested by them. In other years 200 colonies has seemed to be too many when we had little clover. Taking one year with another, I do not think 500 colonies too many for the locality named.—G. L. TINKER.

Using Sheets of Perforated-Zinc.

Query, No. 299.—Which is the best way to use sheets of perforated zinc—with two bee-spaces, one below and one above, or only with a bee-space above the zinc?—H. S.

Either would answer.—G. M. DOOLITTLE.

With two spaces.—W. Z. HUTCHINSON.

I prefer two bee-spaces, so as to keep all the sections neat.—A. J. COOK.

I have never had any use for perforated-zinc honey-boards.—H. R. BOARDMAN.

It is best to use them with bee-space below and above.—H. D. CUTTING.

I do not know, but I think the one space may be better.—C. C. MILLER.

Either way succeeds well, but the space between the zinc and the top of the brood-frames should not be over $\frac{1}{4}$ inch.—G. L. TINKER.

Two, every time. Do not let the zinc rest against the brood-frames, nor sections, nor anything else within bee-space. All are coming to this, and do you not see it?—JAMES HEDDON.

I presume the zinc-excluders are made to suit the "make" of the hive used. As for myself I make all my hives and cases so as to have a shallow bee-space above and below the frames and sections, hence the honey-board or zinc-excluder must have the shallow space above and below its surface or plane. I much prefer this system for too many reasons to explain here.—G. W. DEMAREE.

I use single sheets. If it is meant to inquire if two sheets should be used, one above the other, I can see no good reason for so doing. If intended to ask whether the zinc should be so placed as to leave a bee-space on each side of the zinc (and which, I presume, is the intention), I should say, give such bee-space on each side, but be sure and give no more, else brace-combs will surely be built.—J. E. POND, JR.

Number of Frames in a Hive, etc.

Query, No. 300.—1. Can both black and hybrid bees come from one colony? 2. Which is best, 10-frames or 9-frames in a hive 14 inches wide inside? My hive is 14 inches wide, 12 inches high inside, and 14 inches long inside. The frames I use are $11\frac{1}{4}$ inches deep, and 14 inches long outside—almost the same as the Adair frame—and I would like to know if this is as convenient as others, or if it is too short for the width and length? For extracting I use two of these hives, one for a brood-chamber and one for extracting. For comb honey I use only one.—AMANA.

See answer to Query, No. 297. For comb honey I would recommend nine frames in the hive you use.—J. P. H. BROWN.

1. If you mean as the progeny of one queen, no, although they may look like it. 2. If combs are straight, ten frames for summer and nine for winter.—C. C. MILLER.

1. Some of the bees in a "hybrid" colony are black bees, to all appearances; others show one band, and still others two or even three. 2. I should consider it too short.—W. Z. HUTCHINSON.

1. Yes, if I understand the question rightly. There are always some black bees in a hybrid colony. 2. I use nine frames in $13\frac{1}{4}$ inches of space. I prefer the Gallup frame to all others, but this is only one of my preferences.—G. M. DOOLITTLE.

1. If the querist wishes to know if there are a few all-black bees in hybrid colonies, I answer yes. 2. If the hive must be so large, the more frames the better, provided they are spaced from centre to centre $1\frac{1}{4}$ inches. For extracting, it matters little what the size and shape of the brood-chamber is, but for comb honey

your brood-chamber is too large, as well as too deep. One thousand square inches of comb is plenty, and only 700 in a reversible hive does remarkably well on trial.—G. L. TINKER.

1. I presume you mean to ask if the progeny of a hybrid queen can or does show a mixed lot of bees, some having the markings of black bees, and others the yellow markings common to hybrids, all from the same colony. If so, I answer yes. See answer to Query, No. 297. 2. Ten frames. Your hive would not suit me, but one will get used to any sort of frame and hive. I prefer the standard Langstroth frame, which is $17\frac{3}{4} \times 9\frac{1}{2}$ inches.—G. W. DEMAREE.

1. Not unless the queen has been changed. In colonies that are well mixed with black bees some workers may look like good Italians. Again a very little black admixture will show in some of the bees wanting the three bands. 2. The worst feature of your frame is its oddity. The Langstroth frame is the best, as so many are in use.—A. J. COOK.

1. Yes, in color. 2. Nine frames. I find by careful inquiry, and from statistics gathered at our State conventions, that more bee-keepers use a frame nearer 10×14 inches than any other size.—H. D. CUTTING.

1. Yes. 2. Ten. Not for James. Were I going to establish a standard frame for one-story brood-chambers, I should make it $1\frac{1}{2}$ inches shallower than the standard Langstroth frame now is.—JAMES HEDDON.

1. No sir! except that some of the worker progeny of an impurely mated queen may be found as black as are any black bees. 2. If it is desired to devote the lower story to brood entirely, ten frames should be used, spaced just bee-space apart. If it is desired to have stores placed below as well as brood, use nine frames. So far as frames are concerned, I prefer the Langstroth frame; others, deeper frames. The rule is, I take it, that the frame one is accustomed to, will be the one he prefers.—J. E. POND, JR.

Convention Notices.

The Iowa State Bee-Keepers' Association will meet on the Fair Grounds in Des Moines, on Tuesday, Sept. 7, 1886, at 2 p.m., continuing in session during that and the following two or three days. A large and substantial tent has been secured and is now at hand for the use of the society. Any or all of the 6,000 bee-keepers of Iowa are urgently requested to be present and help make the meeting a pleasant and profitable one.
A. J. NORRIS, Sec.

O. O. POPPLETON, Pres.

The St. Joseph, Mo. Inter-State Bee-Keepers' Association will hold its annual meeting on Wednesday evening of the Exposition week, September 30, 1886. Arrangements are being made to have an interesting meeting. The place of holding the meeting will be published in our local papers on Tuesday and Wednesday a.m.
E. T. ABBOTT, Sec.

The N. W. Wis. & S. W. Wis. Bee-Keepers' Association will hold its next meeting at the residence of F. D. McKibben, $\frac{1}{2}$ mile east of Dakota, on the Milwaukee & St. Paul R. R., on Tuesday, Sept. 7, 1886.
JONATHAN STEWART, Sec.

The Illinois Central Bee-Keepers' Association will hold its next meeting at Mt. Sterling, Ills., on Tuesday and Wednesday, Oct. 19-20, 1886. J. M. HAMBAUGH, Sec.

CORRESPONDENCE

Explanatory.—The figures BEFORE the names indicate the number of years that the person has kept bees. Those AFTER, show the number of colonies the writer had in the previous spring and fall, or fall and spring, as the time of the year may require.

This mark \odot indicates that the apiarist is located near the center of the State named; \odot north of the center; \odot south; \odot east; \odot west; and this \odot northeast; \odot northwest; \odot southeast; and \odot southwest of the center of the State mentioned.

For the American Bee Journal.

The Sting Structure of the Bee.

WM. F. CLARKE.

Man is a creature of extremes. When I announced the hibernation theory I did it with too great a flourish of trumpets. On making known another discovery of mine in the realm of apiculture, I went to the opposite extreme, and was too modest. I refer to the functions performed by the sting of the bee. I broached this matter at the Detroit Convention, and did it in such a way that some thought it was a "scientific pleasantry." How strange it is that when one man gets off a "scientific pleasantry" it is forthwith echoed through the land as a truth, although it carries the stamp of absurdity on the face of it; while if another man propounds a truth, well-nigh self-evident, it is taken as a joke! At the Rochester meeting of the New York State bee-keepers in February last, Mr. Isham and others congratulated me on having made a most important hit. This astonished me, for I had begun to think that I should not be permitted to "discover" anything. Having been recently ousted from the paternity of the hibernation theory by the last man in the world whom I expected to find ahead of me in propounding that theory, viz: Prof. Cook, I must hang on to the only rag and shred of discovery that is left me, or I shall be nothing but a "full private" in the great army of bee-keepers!

But, joking apart, I became satisfied from observations made last summer, and repeated during the present season, that the most important function of the bee's sting is *not* stinging. It had often seemed to me that to get up such an elaborate and exquisite piece of machinery merely for the purpose of inflicting a wound was hardly harmonious with the economy of nature. Waste of appliance is never to be found in the material world, and if only stinging had been meant to be done by the stinging apparatus of the bee, I do not see why it need have been more complicated than the proboscis of a mosquito, or the ovipositor of a gall-fly. If you examine the sting structure of a bee as represented in a good engraving

which shows it magnified about thirty times, and study it closely, even with unscientific eye, as I confess mine is, you cannot help feeling that there is an extravagance of complexity and delicacy in construction altogether inexplicable on the supposition that the sole function of this beautiful piece of machinery is that of a weapon of attack and defense.

My observations and reflections have convinced me that the most important office of the bee-sting is that which is performed in doing the artistic cell-work, capping the comb, and infusing the formic acid by means of which honey receives its keeping qualities. As I said at Detroit, the sting is really a skillfully contrived little trowel with which the bee finishes off and caps the cells when they are filled brimful of honey. This explains why honey extracted before it is capped over does not keep well. The formic acid has not been injected into it. This is done in the very act of putting the last touches on the cell-work. As the little plant trowel is worked to and fro with such dexterity, the darts, of which there are two, pierce the plastic cell surface and leave in the nectar beneath it tiny drops of the fluid which makes it keep well. This is the "art preservative" of honey. A most wonderful provision of nature truly! Herein we see that the sting and poison-bag with which so many of us would like to dispense, are essential to the storage of our coveted product, and that without them the beautiful comb honey of commerce would be *non est*.

If these things are so, how mistaken those people are who suppose that a bee is, like the Prince of Evil, always going about prowling in search of a victim! The fact is that the bee attends to its business very diligently, and has no time to waste in picking unnecessary quarrels. A bee is like a farmer working with a fork in his hay-field. He is fully occupied and very busy. If molested or meddled with, he will be very apt to defend himself with the implement he is working with. This is what the bee does, and man by means of his knowledge of the nature and habits of this wondrous little insect, is enabled, in most cases, to ward off or evade attack. It is proof of their natural quietness, industry and peaceableness, that so many thousands of them will go through a summer of ceaseless activity close to your dwelling house, and perhaps not half a dozen stings be inflicted during a whole season.

Since the above was written, I have re-read Cheshire's chapter on the stinging apparatus, which, in common with all other works on the structure of the bee, recognizes no other use for the sting than that of inflicting a wound. But how perfectly suited it is for that other purpose for which I feel sure it is mainly intended. I am especially struck with the adaptation of that pair of very beautiful organs called *palpi*, supposed to be feelers by means of which the bee examines the nature of the surface to be punctured. I do not think there is this prelimi-

nary examination in stinging. It is done in a flash, and when bees are angry, they are not particular what substance they run a muck at. They will sting an iron pot as quickly as any softer article. These organs are shaped very much like the brush of a well-tailed fox, and I believe that the process of cell-finishing is performed very much as a plasterer finishes a smooth wall, alternately using both trowel and brush. In a similar manner the bee alternately uses the sting and palpi.

"How skillfully she builds her cell,
How neat she spreads her wax!"

Guelph, Ont.

For the American Bee Journal.

Building Drone-Comb—Feeding Sugar.

W. Z. HUTCHINSON.

Mr. Mitchell now says, on page 523, that he did not mean that he waited 6 or 7 days after hiving before he put on supers, but rather that the bees swarmed out because he did not give them room enough, and he then gave them more room in the brood-chamber; and at the sixth or seventh day, as he went to put on more supers, he then found them building drone-comb in the brood-chamber. At least, this is how I now understand Mr. M.; if I am wrong I wish to be set right.

When he gave them more room in the brood-chamber, does he not see that he thereby brings about a condition conducive to drone-comb building, viz: a large brood-chamber which enables them to store honey therein? and if honey was coming in such a flood that some colonies stored 120 pounds of surplus before July 10, it is no wonder that they built drone-comb in which to store it.

He says that he cannot conceive how my system destroys all wish and instinct of the bees to build any more drone-comb. The desire to build drone-comb ceases when the swarm issues, and if they build drone-comb immediately after swarming it is because they are gathering honey rapidly and must build comb in which to store it; or because the queen is so old that she will soon be superseded. Mr. M. says he will "try once more." Good. If he finds it necessary to give the bees more room, in order to make them contented, let him try giving it in the surplus apartment.

Mr. M. says: "I have many colonies that were given foundation that have about honey enough to winter on, and those that had to build their combs are starving." It is quite evident that there is a difference somewhere in the management or locality, or he could not report exactly opposite results from myself. When I use no foundation in the brood-nest, I secure much the most honey in the supers, while the brood-chamber is nearly free from honey, as compared with the brood-nest of the swarm that is furnished with foundation. The honey thus secured in the supers is sold for at least twice what it will cost to replace it with sugar.

One season I secured more honey in the aggregate (i. e., counting that in both the supers and brood-nests) from the colonies that built their own combs in the brood-nest.

I do not consider it so very "hard to have to turn around and buy sugar for 100 colonies run on six frames all summer," when this condition of the brood chambers is the result of having squeezed all the honey into the sections, in which shape it can be sold for twice what it costs to replace it with sugar. This course may put down the price of honey, but it also puts down its cost, and helps us to successfully winter our bees; and as for making millionnaires of our sugar merchants, I see no reason why this will injure bee-keepers or any one else.

Rogersville, Mich.

For the American Bee Journal.

Feeding Bees—Removing Surplus.

J. H. ANDRE.

Last season I gave a description of how I fed my bees for the purpose of building up weak colonies, or in order to get the brood-chamber well filled with brood. Since that time I have made some improvements over the style of feeder then used, and as it suits me the best of any arrangement for feeding in moderate weather that I have seen mentioned, perhaps it may please some others also.

To make the feeder, use lumber $\frac{3}{8}$ of an inch thick for the sides of the box; cut one piece 2 inches longer than the other three, and nail them together in a manner that will leave the box square inside; this will give a projection of one piece at two of the corners of one inch. The side pieces will need to be 2 inches wide. Fasten on the bottom with screws or in a way that it may be easily taken off. In the side of the box which has the long piece, bore an inch hole, or a piece may be sawn out nearly to the bottom. Cut a neat piece of comb that fills the box, or two or more pieces if well matched together. Nail a piece of wire-cloth with meshes just small enough to keep the bees from getting out on the top of the box. Bore a hole in the back side of the hive, place the box against the side of the hive with the hole to correspond with the one in the hive, and fasten with screws through the piece on the side that projects by the corners. The cover should be somewhat larger than the box, and fit fairly well, and well cleated on top to keep it from warping.

In using this feeder pour the feed through the wire cloth, taking care not to run the comb over and let it drip through the bottom of the box, as it might create a desire to rob. The idea of putting on the bottom so that it may be easily taken off, is for the purpose of removing the comb when one is through feeding, for unless extra care is taken it would go to feed the worms before wanted again.

This method of feeding will not answer for cold weather or in chaff

hives, but for single-walled hives of any description, box or frame, I want nothing better in moderate weather, as one can see and tell just what he is doing; can feed at any time of the day without any danger of being stung, and, if careful, without any robbing. An ordinary tea-pot with crooked spout answers best with which to pour the feed in.

I notice that some advise taking out the full sections from the cases as soon as a few are filled, and replacing them with those containing foundation. This may do if separators are used, but the majority of bee-keepers at the present time are not using separators with the one-pound sections, and if their experience is the same as mine, they will find in nearly every instance where a section containing foundation is placed beside one nearly full, that the honey in the full one will be carried out into the empty one; and if one is placed between two, it insures a very thin comb, making it bad to take to market unless one is careful and places them in the same position in the crate that they were in the case.

In taking off surplus I take case and all, and those sections that are nearly full I put together; those that are only half full I put in another part of the case, and fill out the case with empty ones, which is put on when I take off the next one. It does not irritate the bees so much, is just as well done (in fact very much better unless one takes time to fix them when removing the sections), and it is a great deal more quickly accomplished.

Lockwood, N. Y.

For the American Bee Journal.

Coffee for Curing Foul Brood.

J. DENNLER.

With each spring we have here and there foul brood showing itself. Like a black and hideous spectre this the worst of all diseases amongst bees, from time to time makes its appearance. It brings death and destruction to many an apiary, and gives to the apiarist much trouble, and often, loss.

The nature of this disease is well known, and of late has been sufficiently written about not to require repeating here. As to the remedy, however, opinions vary very much, some recommend salicylic acid, carbolic acid, or camphor, etc., and will be certain of good results. On the other hand a great number doubt the quiet disappearance of the disease, and only advocate the entire destruction of the colony as the only proven remedy for saving the remaining colonies. If it were permissible to make a statement here we would like to make the following: The former have operated in good, the latter in poor honey seasons. In good honey seasons the disease disappears of itself.

The opinion that we advance, that heretofore nature has been the active combater of foul brood, is shared by

many experienced bee-keepers. Records prove this, and we will refer to them hereafter. Lehzen wrote some years ago in *Centrablatt* that in certain localities in North Germany foul brood appeared from time to time, but also again disappeared. If this latter were not the case as Lehzen affirms, nature would not be able to battle with this great pest; yes, more, this creature, the bee, would long have disappeared from the face of the earth. After all this we therefore stand aside from nature, pretty helpless as to foul brood, and therefore the more welcome must be the following communication by Herr Wust, of St. Amarin (Oberelsasz), on

"COFFEE AS AN ANTISEPTIC."

On Sept. 1, 1885, at the general assembly in Colmer, all the remedies for the cure of foul brood in general, were too impracticable, too expensive, too uncertain, and only flames and fire were left as a radical remedy to be recommended to the practical. I consoled myself with the hope, that our men of science would yet succeed in finding a remedy. As it appears to me now it had already been found on Alsacian ground through first staff physician, Dr. Oppler, in Strasburg, a remedy convenient in every home; in short, coffee roasted and ground to a fine powder.

In the December number *Deutschen Militärärztlichen Zeitschrift* will be found several uses and experiments with coffee as an "antiseptic," which were conducted with blood, glue and flesh, such substances as will easily mix with coffee. In a glass 10 g. of blood and 1 g. of coffee powder were well mixed, and in a temperature of 16° there was for two days no perceptible odor. The prepared blood, which had become putrid, was mixed in a rain-glass with 1 g. of coffee powder, and well shaken, which then in half a minute before ceasing the shaking had become odorless, and remained so for 1½ days. Ten g. of a foul smelling solution of glue was mixed with ½ g. of coffee powder; in one-half minute it became odorless, and continued to be so for 20 days, in spite of its being in an open glass exposed to the atmosphere. Twenty-five g. of meat chopped small, impregnated with 11 g. of coffee powder resulted in the same manner. Fifty grains of meat with 9 g. of coffee powder mixed with it is, after three days, without a trace of smell, and dried so that it can be rubbed to a powder with a loss in weight of 67 per cent.

After it was proven indisputably that coffee was effectual as a preventive of decay, and also effectual to arrest putrefaction, it was next necessary to test it for this purpose for wounds. Two soldiers had, during a fall down stairs, given themselves severe wounds upon their heads. The wounds of the one were already festering; every time the wound was treated with coffee powder it became dry and coated, and the third day the man was again fit for service.

With such excellent results, the remedy was used as a weapon against bacteria in veterinary. It is well

known that bacteria are the carriers of the cause of the disease foul brood. It seems hardly admissible that there should be a doubt as to the success of the bee-keeper to battle foul brood with coffee powder. The advantages are apparent to all. The remedial agent can be secured everywhere; it is cheap, can readily be applied, and is harmless in even large doses.

The best mode of applying the remedy the unfortunate apiarist will soon find out. As for myself I will dust all suspected cells or fill them. Where colonies are affected badly, dust all brood-cells, which, as they will at least thoroughly dry out, can be cleaned more readily. A very liberal application can hardly injure, so it would in such cases not hurt to dust the full and empty cells.

Quite an evident advantage lies in this, the remedy is applied dry; it soaks up all moisture, and by means of this facilitates the cleansing of the combs for the bees. Also as a preventive the addition of a little coffee to the water for bees must be a real advantage. I beg these words will be taken as they are intended—an incitation to use it as a remedial agent. It is so cheap, so simple, that it would be wrong without having tried it, to consign our pets to the flames.

Bee-keepers! coffee as a prevention of putrefaction has drawn the attention of the scientific world to it. If we follow the advice of Herr Wust, we will try this simple antiseptic whenever the appearance of foul brood offers an opportunity; it can do no harm. We will not let this question rest until we have found the remedy and are able to free ourselves of this foul pest whenever it appears, or are able to totally prevent it.

Enzheim, Germany.

For the American Bee Journal.

Pumpkin Honey.

A. J. KING.

That certain flowers in one section yield a bountiful supply of honey, while in others they yield little or none, is now a well-established fact among practical apiarists. That this is the case regarding pumpkin bloom, I am led to believe from the very meager reports respecting it, which we occasionally see in the bee-periodicals. As a matter of fact, where the proper atmospheric conditions prevail, it has very few superiors, producing a fine straw-colored nectar of excellent flavor, and very heavy body, weighing 12 pounds per gallon.

Our large apiary in Cuba was surrounded on two sides by a corn field of eight or ten acres, in which pumpkin seeds had been "stuck" in every third or fourth hill, producing vines which completely covered the ground. During the month of February we took five tierces (6,000 pounds) of honey from these blossoms alone.

At the base of the blossom surrounding the projecting centre, are three little openings equally distant

apart, leading to a little circular cavity containing the nectar. I have frequently observed three or four bees on a single blossom, each with its little tongue thrust into these openings and "pumping" away for "dear life." The yield of pumpkins was the largest and finest I saw on the island, which, I infer, was due to the frequent fertilizations performed by the bees.

Botanists tell us that the nectar secreted by the flowers, contributes in no way to their beauty or the growth of the stalk, but simply attracts honey-loving insects which, in flying from bloom to bloom, carry with them on their hairy bodies the pollen which cross-fertilizes all the blossoms they enter, and produces fruit, perfect in flavor, large in quantity, and beautiful to the eye. If fruit-growers and flower-gardeners would more fully recognize this beautiful provision of an all-wise Providence, the world would be greatly benefited and beautified.

New York, N. Y.

For the American Bee Journal.

A Chapter of Lamentations.

JOE KING.

When I read Dr. Miller's proposition, on page 44, to hire out to the editor of the BEE JOURNAL at a salary, to look up and report the failures in bee-keeping, so that we might have the failures as well as the successes, it struck me very favorably, and I thought of applying for the second appointment, for it seemed to me that I had experiences to qualify me to understand that side of the question, as I have been keeping bees for 12 or 15 years, and my even tolerable yields of honey were always in next year's expectations; but if I did not produce what I wanted to eat, I could buy it at the grocery, and I was contented and happy.

But in an evil hour something put it into my head to subscribe for the AMERICAN BEE JOURNAL, and I did, but then was where I made a mistake; for last fall I put my bees into the cellar as directed, leaving the caps on the summer stands, and nothing over the brood-frames but a piece of bur-lap. I put a thermometer and a stove into the cellar and used to watch the bees so comfortably tucked up in their little beds. I put them out in the forepart of April, and I thought I had "done it."

All seemed to work nicely till the white clover bloomed, and then the eternal hum of those bees seemed to be "more section cases," "more sections," "more room!" all the time. Talk of your 8 hours for labor, 8 hours for improvement, and 8 hours for sleep, why, sir, I worked 18 hours out of 24, and then could not keep up; work all the time, only to fall asleep to dream of bees buzzing around my ears; no picnics, no Fourth of Julys, no Sundays, but work all the time!

Well, there came a time when the honey had to be taken off, and the

question was, what to do with it. I piled it up in the porch until the floor began to bend under the weight, and I found it would all be down in a mash. I then piled it up in the chamber over our bed-room until we feared it would break down in the night and kill us; and "down on us came our neighbors, a couple of dozen strong, and lent their kindest service to help the thing along;" and they bought fifty cents, one dollar, two dollars, three dollars, four dollars, and some ever five dollars worth, and all paid in silver—and then what to do with that! If I put it in the bank it might break; if I carried it in my pockets it would soon wear them out; and, besides, there was danger of burglars breaking in at night and stealing it, and I tried to keep awake to watch it, but my system being full of that bee-poison, it made me so nervous that I could not keep awake even to read the BEE JOURNAL after 9 o'clock.

So in the agony of my spirit I cried, "Away with your new-fangled notions! Let me return to the practice of my fathers, when we used to hoe corn until the old tin horn blew, and then we all rushed to the house, and we boys beat on tin pans until we got the bees to alight somewhere, provided they did not go off to the timber; and father hunted up a board and made a box, not forgetting to put in the cross-sticks to keep the comb from breaking down. Then the table was brought out, a sheet spread on it, and after the hive was washed out with salt and water, and rubbed on the inside with bee-balm, the bees were put into it, and they staid just as contentedly as bees do with all your gim-cracks. Then in the fall when we wanted honey we killed the bees with brimstone. But, alas, the bees have abolished the 'brimstone' theory altogether, have spoiled Sunday, and soon all the old landmarks will be gone, and like Hofed in his dream, we will be groping around in a world of chance."

P. S.—I do not consider the above lamentation worthy of publication, but if the editor thinks best he could send it to that man Andre of New York, to help him out with his lamentations, given on page 453.

Marshalltown, Iowa, Aug. 23, 1886.

For the American Bee Journal.

Pleurisy-Root as a Honey-Plant.

JAMES HEDDON.

While the subject of honey-plants is being discussed, I wish to add my mite by describing a plant that grows wild here, and also in some other localities, I think. It is called pleurisy-root (*Asclepias tuberosa*), and is the plant I described in *Gleanings* some time ago. Still another year's observation of this rapidly increasing honey-plant makes me think that it is not excelled by any other known to bee-keepers.

If there is any plant that will pay for giving the full control of land, I think it is this. I believe that all of

my students that have watched it during the last three years, will concur in this belief. I would rather have one acre of it than at least three acres of *Melilotus alba*. I discovered the first specimen of it four years ago, and was attracted toward it by seeing it "covered with bees," a sight that always may be seen when it is in bloom, and cold, or excessive raining does not prevent. Its rapid increase during the past four summers, from an isolated plant here and there to thousands of them at this time, and no more robbing after basswood, is as wonderful as gratifying. I account for this marvelous increase mainly from the favorable habits of the plant, and to some extent from the perfect fertilization secured by the bees of my apiary. All know that Darwin tells us that "the more flowers, the more bees; the more bees the more seeds; the more seeds the more flowers." This is not only a well established fact, but one for which we may be glad.

The plant is a perennial, the root living on till it dies of old age. The top dies yearly, but always re-appears in due time. It blooms quite variedly, the first appearing about the middle of the basswood bloom, and the last leaving about the middle of August. It is at its height, just in the right time to fill the break that occurs between basswood and the August flowers in this latitude.

Among other valuable qualities possessed by this plant, are the following:

1. It has no thorns, and cannot become an obnoxious weed.
2. Its honey is of the finest quality, both in color and flavor.
3. The plant is extremely hardy, readily asserting supremacy among weeds and grasses, and even in a matted sod it grows luxuriantly.
4. It bears extremes of wet or dry weather better than any plant I have ever seen; not only looking bright, but continually yielding honey through these extremes. Bees work on it in the rain, and in our past excessive drouth it never stopped its secretion.
5. Each seed has a balloon, which insures a broader dissemination of the plants in all waste places. By means of the draft made by railroad trains, our land along the railroad track is strewn with it.

Bees never neglect this plant for basswood or any other blossoms, but are always found upon it in numbers that must certainly overstock it in this locality. In two instances my students have found plants in isolated places that had been overlooked by the bees—once in basswood time, and this morning during the buckwheat bloom, and in each case the drops of white nectar are exuding from the nectaries.

I have several times examined basswood blossoms when they were yielding bountifully, and could never see the nectar in the blossoms to the extent that I find it in the pleurisy-root.

So far as I can yet discover, this plant has but one objection, as I do not find any specimens of it on our

rich prairie soils. It seems to delight in poor soil, and no old, sandy, worn-out field is too poor for it. To just what latitude it properly belongs, and what is the best time and manner to sow the seed I do not yet know. Whether it will succeed well on heavy soils is a matter for trial.

I send a specimen, and as I put it in with this article, little drops of honey are sparkling in every blossom; but where that honey will be when it reaches the BEE JOURNAL office, the editor can tell us.

Dowagiac, 9 Mich.

[The "sparkling honey drops" were in the blossom when it came to us, looking like so many tiny diamonds. Sometime or other bee-keepers will "come up" to the idea we have so often advanced, concerning their duty to plant for bee-pasturage, and when that time comes, pleurisy-root will, no doubt, be one of the favorites.—Ed.]

For the American Bee Journal.

Solar Wax-Extractor.

JAS. McNEILL.

I can fully endorse Mr. Demaree's opinion of the solar wax-extractor, as given on page 501. I have used one for the past two seasons, and no implement about the apiary has afforded me greater satisfaction. Before I had one I used sugar-barrels in which to store the cappings till I had time to melt them over a fire; but drain them as well as I might, they would drip, and drip, and continue to drip with the persistency of the Dutchman's setting hen, till my ingenuity and tin-pans would be exhausted in my efforts to preserve my honey-house floor from pools of honey. But the solar wax-extractor has changed all this; the cappings of one day's extracting being converted on the next, into a cake of nice yellow wax of $\frac{1}{2}$ their bulk.

The amount of honey which goes off with the wax is generally two or three times its bulk. The heat of the extractor scorched this honey, and made it unsalable, until it occurred to me to try the plan of placing a perforated tin-pan above the tray, which I had formerly used. This was made the same size as the tray, with short legs soldered on to give space for the honey and wax to flow. By this arrangement the honey is out of the heat of the sun before it is damaged, and I also think that the quality of the wax is improved for the same reason. Much less refuse, also, is swept into the receptacle with the stream of wax. The perforations must be large enough, about 3-16 of an inch, or they will become clogged with the refuse.

I blocked my extractor up at one end the first season to give the tray the proper pitch, and to have the glass at the proper angle with the sun. I also found it necessary to shift it around as the sun advanced, to get

the full benefit of the sun's rays. But I have thought out and adopted a better plan to accomplish these results. It is as follows:

To two pieces of 2x4 inch stuff, three pieces of string-piece are nailed flat-wise, one at each end and one in the middle, so as to make a frame the length and width of my extractor. Two of these frames are needed. Through the centres of the middle pieces a hole is bored, into which a bolt is dropped, so that these two frames revolve horizontally with the bolt as a central pivot. One of these frames is leveled on four bricks, and upon the other rests the extractor; one end being supported at any desired height by means of two strips and two thumb-screws. Two thumb-screws also hold the tray at the proper angle. I am thus enabled with very little trouble to adapt my extractor to the progress of the sun toward the west, as well as its progress toward equinox.

Hudson, N. Y.

For the American Bee Journal.

Reversed Queens, Discussions, etc.

G. W. DEMAREE.

I ought to thank Rev. Dr. M. Mahin for his kind effort to help out my new discovery of reversed queens, as evidenced by his criticism on page 521. The Doctor evidently takes me to be a novice, or at least a very superficial observer. He assumes without question that I mistook the very common practice of young queens to re-enter the cells head foremost, for the peculiar abnormality which I described, and which is not a mystery at all, because of its frequent appearance to observing students of nature. We all know that young queens frequently re-enter the cells in quest of the food left in them, and it is not improbable that they might in rare cases be entrapped by the bees sealing the adhering cap to the cell.

During the present season I have had a great number of queens hatched in a queen-nursery, where the bees do not have access to the cells, and here is where I made the first discovery. I have seen and examined four queens in all, which were reversed in the cells. One of them was yet in the pupa state, when I discovered her. If I had any doubts about the matter before, there could be none whatever in this case.

I shall not insist on the Doctor accepting as a fact something that he has not seen with his own eyes; but I am reminded of a case in point, which took place some years ago. The editor of the defunct *American Bee-Keeper* denied positively that there was any such thing as fertile (laying) workers, and gave as a reason that he had never seen one. Mr. Thomas replied that the editor, Mr. Harrison, had never seen his own brains, and by parity of reason he had none.

Of course I do not apply the above illustration to Dr. Mahin, as I need

nothing more than his articles published in the bee-periodicals from time to time to judge of his ability, but the illustration may serve to make most of us a little cautious as to how we deny any and every thing because we have not seen them with our own eyes, and because they seem to be improbable to us.

Who is "Justice Fairman," of Louisville, Ky., whose article appeared on page 519? I have a large acquaintance with prominent bee-men in Kentucky, and ought to know something about the well-posted bee-men of the State, but for all this I never before heard of Justice Fairman as authority on bees and hives. I suspect that he writes under a *nom de plume*. Whatever may be the facts, his attack on me on page 519 is not devoid of good reading, since he has quoted so extensively from my articles.

The fact that Mr. J. M. Shuck's patent hive, which embraces the features about which I wrote, and to which Mr. Fairman (?) takes exceptions, antedates any other patent hive which embraces the same features, was sufficient reason for my making mention of Shuck's hive, and no other. The fact that the patent-office authorities have issued patents on more than one hive embracing this feature, shows clearly that they did not intend to cover that feature by patent.

There is a wide difference between giving "honor to whom honor is due," and the disgusting servile toadyism so prominent in much of our modern bee-literature. It has come to pass in these days that no man can write a practical article on any subject pertaining to hives or apiarian implements without having some sore-headed patent-hive man (or his henchmen) pounce on him with their slurs and insinuations. I wish here to enter my protest against the "advertising" of bee-hives, etc., which fills the reading columns of the bee-periodicals to the exclusion of other matter of interest to all. It is an imposition upon the proprietors of the papers, and on those who patronize them. And when I say that, the sooner the whole thing is "shut off" the better for all concerned, I believe I speak the sentiments of a large majority of bee-men generally.

Christiansburg, ♂ Ky.

[True, Bro. D., but have you not done as much as any one to continue the discussions which brought such "advertising" into the reading columns? Your pen has been "dipped in gall" about as often as any one's, but your articles are so "vigorous" and "interesting" that we like to read them, even if we are obliged to "pull out an occasional sting," or allow a reply which smacks of "advertising in the reading columns," against which you now so vigorously protest! We have been obliged to shut down on many subjects in our columns, simply because of this tendency and the run-

ning of one subject so persistently as to disgust our readers; and had we not done so there is no telling to what lengths our correspondents would have gone.

Now let all try to write on subjects for the purpose of bringing out their true merits, and not simply to combat something which has been before-stated. Here is a "lesson" which ought to be learned, and what a "grand improvement" in bee-literature would be the result? Bro. D.: Will you please "second the motion," and thus set the example?—Ed.]

Florida Dispatch.

Bee-Enemies in Florida.

In the whole list of enemies of the honey-bee in this State, which list is a long one, probably the dragon-fly, bee-hawk or devil's darning-needle (*Libellula*), as it is variously called, is the most destructive. It is a four-winged fly, puts in an appearance towards evening, and continues its work until dark. Here they make their first appearance in large numbers during March, and continue so until late in May, when they largely disappear, but sometimes become quite plentiful for awhile again in the fall. They are voracious eaters, and if they confined themselves strictly to a honey-bee diet, it would surely interfere very seriously with apiculture here. Being gross feeders, however, their diet consists of quite a long list of insects, many of which are classed among the destructive or annoying ones, like the mosquito, of which it is very fond, and will catch and eat by the dozens every evening, when they are plenty. That they destroy a great many bees is without question, but still I do not think that their depredations would interfere seriously with success in bee-keeping, if it were not that some seasons they catch many queens when out to mate, and even in this they are not as destructive as one would expect, who saw them swarming about the apiary.

Mr. A. J. Smith, a skillful bee-keeper, and a reliable man, tells me that out of fifty young queens reared this season during the visits of the mosquito hawks, forty-five were fertilized, and are now doing duty in prosperous colonies. I have kept a less strict account of my own queens, but I think the record would run about the same, and would compare well with that of other sections of the United States, all having their particular bee-enemies and suffering more or less loss from their depredations.

The loss of workers by mosquito-hawks is apt to be alarming to the novice at bee-keeping, and is quite serious where there are but two or three colonies kept. In large apiaries little effect can be seen, as the bees are breeding heavily at this time of year, and one or two good colonies

will produce daily more bees than are killed by all the enemies combined. A mere handful of bees with a good queen will rapidly build up to a good strong colony in the spring, notwithstanding the most plentiful visits to the apiary of this fierce enemy.

The only remedy that I have learned of so far for these pests, is to thresh them down with switches while flying thickly before the hives at evening. It is claimed that this will frighten away to a great extent those that are not killed at once. Those who wish can try this, but I have seldom resorted to it as I have so far been able to succeed satisfactorily at bee-keeping without it.

Next in order, in degree of destructiveness, is the large red or warrior ant. These ants live in decayed wood or under old stumps or piles of trash, and are usually plenty among palmetto trees. They live in large colonies, and will sometimes make a raid upon a luckless colony of bees in the evening, and entirely destroy them by morning.

Remedies: Clean up the ground thoroughly about your apiary, leaving neither stump, rotten root, hollow tree or piles of rubbish, for them to nest in. Then, after dark, walk through the apiary, and if the ants are at work on any colony it can be easily known by the sounds given out by the harrassed bees. When discovered, get a light and follow their line of march back to their nest and destroy it, killing as many of its occupants as possible. After they are once cleared out of a neighborhood, and the ground cleaned up, they are not apt to return in any quantities. I have never lost a colony of bees by these depredators, but some of my neighbors, located on lands more favorable to their multiplication, have only succeeded in overcoming them after suffering considerable loss. While starting an apiary and getting the grounds in shape, probably as good a way as any is to make a stand for each hive, or one for every two hives, but there are great advantages in having your hives rest either upon the ground with short pieces of board at the front and back for it to rest upon, or else to have it near enough so that an alighting-board reaching from the ground to the entrance can be used. Stands of all kinds and contrivances for keeping ants away from the hives while they still swarm upon the ground about them, are nuisances and should be discarded as soon as possible.

Other and smaller ants are often seen about the hives, and sometimes along the edges under the cover, but none of them do any harm worth noting, as they are only at work on dead or crippled bees that have been crushed, or those thrown out by the other bees. The white ants, termites, or wood-lice as they are called, are apt to eat the cleats under the hives, so that they need renewing occasionally, but they do not trouble the bees in any way.

One more item in connection with ants that I nearly forgot to mention, is the inclination of some of the

smaller varieties to attack queens and their attendants while caged for shipping through the mails. Southern queen-rearers use a fine brass wire-netting over their cages, with meshes so close that the ants cannot get through; but it is always a safe plan to keep all caged queens, after received or before shipment, on a stand surrounded with water, or in some other way safely protected from their enemies.

Local Convention Directory.

1886. Time and place of Meeting.

Sept. 4.—Sheboygan Co., at Sheboygan Falls, Wis. Mattie B. Thomas, Sec., Sheboygan Falls, Wis.

Sept. 6.—N. W. Ills. & S. W. Wis., at Dakota, Wis. Jonathan Stewart, Sec., Rock City, Ills.

Sept. 7.—Iowa State, at Des Moines, Iowa. A. J. Norris, Sec., Cedar Falls, Iowa.

Oct. 7.—Wis. Lake Shore Center, at Kiel, Wis. Ferd Zastrow, Sec., Millhome, Wis.

Oct. 12-14.—North American, at Indianapolis, Ind. F. L. Dougherty, Sec., Indianapolis, Ind.

Oct. 19, 20.—Illinois Central, at Mt. Sterling, Ills. J. M. Hambaugh, Sec., Spring, Ills.

Oct. 27-29.—Western, at Kansas City, Mo. P. Baldwin, Sec., Independence, Mo.

Dec. 1, 2.—Michigan State, at Ypsilanti, Mich. H. D. Cutting, Sec., Clinton, Mich.

In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

Western Fair in Canada.—Wm. H. Weston, London, Ont., on Aug. 23, 1886, writes:

The Western Fair, which is usually held at London, Ont., will open on Sept. 27 and close on Oct. 2, 1886. The prize list of the bee and honey department is quite liberal. In 1883 the amount given in prizes was \$11; this year it has reached \$115. We are anxious to have as many as possible of our friends from "over the lines" exhibit with us, which will be of mutual benefit, no doubt. Arrangements have been made with the Custom Department to admit from the United States, free of duty, all live stock or articles intended for exhibition purposes only, by giving the customary bond. All bee-keepers who may wish to exhibit can obtain a prize list with blank forms, etc., by sending a postal card to me, or to the Secretary of the Fair, Mr. Geo. Mc-Broom, at London, Ontario, Canada. Rates will be reduced on the different lines of railroad during the Fair.

Bees did Nobly.—H. M. Parker, Plymouth, Ohio, on Aug. 23, 1886, writes:

My bees up to July 1 did nobly, every colony giving me from 50 to 75 well filled 1-pound sections. I practiced tiering up. When I saw the bees had the first case of sections

partly filled, I raised it and placed a new case of sections under it. I tiered them up three cases high before removing any honey. My bees did not swarm until this month, and then there were only a very few swarms. I have one colony that swarms every eight or ten days. Of course I cut out all queen-cells and put them back. By going through the hive every five or six days, and cutting out the queen-cells, I can keep them from swarming; this I have done a few times, but as I rather enjoy having them I usually let them swarm. Just what the matter is with them I cannot tell, but I presume they have the "fever." To-day my bees are booming again, they come in heavily laden, working on goldenrod and buckwheat. Should this weather last a week or so I shall be able to render a good report this year.

Value of Swarm-Catchers.—J. W. Bailey, Ripon, Wis., on Aug. 23, 1886, writes:

On page 499 I notice that Mr. C. C. Richardson, of Tipton, Ind., has been sued for keeping an apiary, and his bees are considered a nuisance. The complainant says that the bees cluster upon his trees, etc. I do not wish to criticize a bee-keeper too closely, but had Mr. Richardson used a good swarm-catcher he would have avoided all this trouble; and the money he will pay out for defense would have bought "catchers" enough to have lasted him a thousand years. But hold! neither I nor any one else who have used such things, need speak in their praise, or we might be considered by those who keep bees, as having "an ax to grind."

Taking off Comb Honey.—A. H. Baer, Sterling, Ills., on Aug. 24, 1886, says:

I have harvested a crop of over 4,000 pounds of comb honey in sections. Yesterday I alone took from the hives 1,500 pounds.

Carniolan Bees, Separators, etc.—G. F. J. Crowley, (40), Batavia, N. Y., writes:

This superior race has already been fully described by Mr. Frank Benton, on page 454; but as some who claim to be experts in bee-matters are forming the delusive idea that the Carniolan bees are idlers, and undiscernible from native bees, I wish to give my testimony to the contrary. I find that they excel Italians, Syrians, Cyprians, or any other foreign race known at the present time. My bees are reared from imported mothers, shipped direct from their native land. I have Italians, Carniolans, and a cross between these races, but I find the Carniolan the best, with the cross closely following. I also obtained one tested and one untested Italian queen from a breeder last year, which I find are as good as any Italians I have, even the imported ones; but let me ask, why does any breeder defend the

Italians, and run down the Carniolans? Simply because he has not fully tested the Carniolan bees, or he has a trade established in Italians. Hear what Frank Benton says on the introduction of Carniolans: "The demand for them far exceeds that of the Italians in every land, save perhaps Australia, and there they have been rather successful in importing Italians from Italy, but seem to be changing slowly in favor of Cyprians. In England, Ireland and Scotland the trade is mostly Carniolans and Cyprians; Norway and Sweden, Syrians and Italians; United States, Carniolan and Cyprians. Our trade shows the Italians to be decreasing." Among those who have imported Carniolans, and say they are the best bees of today, I may mention S. W. Morrison, M. D., G. L. Tinker, M. D., H. F. Shannon, J. B. Mason, and D. A. Jones. One prominent in our bee-associations, and living near me, who was not in favor of separators, has a nice mess; the combs are all bulged, and, of course, they cannot be crated. It is a pleasure to record another convert to the use of separators.

Bitter Honey.—C. B. Fassett, Forkston, Pa., on Aug. 23, 1886, asks the following question:

What plant in Northern Pennsylvania has honey with a strong, bitter taste, some so strong that one can hardly eat it? It was gathered during the white clover season, and is white like clover. Some sections are all right, and others are bitter. My neighbors complain of the same thing. I never knew of any here before.

[We give it up. Will some one of our readers in Pennsylvania answer the query?—Ed.]

Buckwheat, etc.—T. F. Kinsel, Shiloh, Ohio, on Aug. 24, 1886, says:

I sowed 4 acres of buckwheat on July 15, and in four weeks it was blossoming some. Bees work on it "thick and fast" each forenoon. They go toward their homes loaded with pollen, and perhaps honey, too. With all the promise of a goodly yield early in the spring, the season has not been above or scarcely equal to an average. I have no great amount of surplus. Colonies run for extracted honey have done the best. Comb honey retails at 15 cents for 2-pound sections; 1-pounds 17 to 18 cents. Purchasers seem unwilling to pay the difference.

Bee-Keeping in Alabama.—M. H. Freeman, Olustee Creek, Ala., on Aug. 23, 1886, says:

Our bees are now idle, and I suppose it is caused either from excessive heat or from the absence of nectar in the flowers. This state of things is not unusual at this season of the year. We have just had a poor year for honey, owing to so much rain during the proper season. I started with 4 very weak colonies in the

spring, and I have had 2 natural swarms, and have taken only about 150 pounds of extracted honey, and that came from 3 colonies; the others had just built up to strong colonies when the rains set in. The agricultural interest has suffered also in many ways. I like the AMERICAN BEE JOURNAL better than any of the periodicals that I have seen on apiculture, and think it the best and cheapest bee-literature obtainable, especially for beginners. The Query Department alone is worth many times the cost of the paper.

Good Report.—Fayette Lee, Cokato, Minn., on Aug. 23, 1886, writes:

Bees are in fine condition. I have already obtained 4,400 pounds of honey, and the fall crop to come yet, and it promises to be good. The upper stories are full of honey. My bees have been swarming since June, from 1 to 8 swarms a day. I returned 75 swarms. Basswood was only half a crop. I took 84 pounds of comb honey from one new colony, and they filled a 10-frame hive. I have 144 of the heaviest colonies I ever saw.

Drouth and Fires in Michigan.—L. Reed, Orono, Mich., on Aug. 19, 1886, writes:

We have had a very dry season, having had scarcely any rain since June 1, and still the drouth continues. Bees have done a great deal better than I expected; some colonies have stored 90 pounds of surplus in one-pound sections, and some have stored no surplus at all. I had but very few swarms. The bees seem to be storing some honey now, and for the life of me I cannot see what they are getting it from. Every thing is dried up; the fruit trees are dying. I went through my yard and lifted all the hives, and they are very heavy. I shall not have to feed. The raspberry, one of our best honey plants, is mostly destroyed by fire. Almost one half of the country is burned over, and fires are still raging. Some farmers have produced scarcely enough to keep one cow over winter.

Season of 1886.—Robt. A. Vance, New Hamburg, Ont., on Aug. 16, 1886, writes:

This has been a very poor season for bees. The spring was very cold. They got some maple honey, and fruit bloom was very poor. White clover bloomed well, but the nights were cold and the days very warm and dry. The basswood was a failure; there was a tree here and there that bloomed. There is very little goldenrod in this part, as it grows on low, swampy land here. The BEE JOURNAL is a welcome messenger every week.

The annual meeting of the Western Beekeepers' Association will be held in Pythian Hall (11th & Main Sts.), at Kansas City, Mo., on Oct. 27-29, 1886. P. BALDWIN, Sec.

Honey and Beeswax Market.

Office of the AMERICAN BEE JOURNAL,
Monday, 7 a. m., Aug. 30, 1886.

The following are the latest quotations for honey and beeswax received up to this hour:

CHICAGO.

HONEY.—It continues to arrive very freely. The demand is light and sales are made chiefly at 12@13c. Extracted is also quiet with prices unchanged, 6@7c.

BEESWAX.—It is easier, and 23c. is about all will bring.

R. A. BURNETT, 161 South Water St.

NEW YORK.

HONEY.—The present quotations are as follows: Fancy white comb in 1-lb. sections, 10@12c.; fancy white comb in 2-lb. sections, 8@10c.; buckwheat in 1 and 2-lb. sections, 5@8c.; extracted white clover, 6c.; extracted, California, 4@5c.; extracted, Southern, per gallon, 45 to 55c.

BEESWAX.—23 to 25c.

MCCAUL & HILDRETH BROS., 34 Hudson St.

BOSTON.

HONEY.—One-lb. sections, white clover, 13@15c.; 2-pound sections, 11@13c. Extracted, 6@8c.

BEESWAX.—25 cts. per lb.

BLAKE & RIPLEY, 57 Chatham Street.

DETROIT.

HONEY.—The market is improving. The demand is better and the prices are also improved. Best comb in 1-pound sections brings 14@15c.

BEESWAX.—Firm at 23c. for fair quality.

M. H. HUNT, Bell Branch, Mich.

CINCINNATI.

HONEY.—Demand is slow for all kinds and shapes of honey. Prices of extracted honey range between 3@7c., according to quality; and choice comb honey brings 14@15c. in a jobbing way.

BEESWAX.—Demand is good and arrivals fair. We pay 23c. for good yellow.

C. F. MUTH & SON, Freeman & Central Ave.

CLEVELAND.

HONEY.—The demand for honey is not very lively at present, but prices are steady. Choice new honey in 1-lb. sections is selling at 14c.; 2-lbs. 12@13c. Old honey is very dull at 10@12c. Extracted, 6@7c.

BEESWAX.—25c.

A. C. KENDLE, 115 Ontario Street.

KANSAS CITY.

HONEY.—The market is active and sales of the comb are large. Extracted is firm with no stock in the city. We quote: One-pound sections of white clover, 13@14c.; dark 1-lb., 11@12c.; 2-lb., 11@12c.; dark 2-lb., 8@10c.; 2-lb. Calif. white sage, 10@11c.; dark 2-lb., 8@9c. Extracted white clover, 7@8c.; dark, 4@5c.; Calif. white sage, 5@6c.; dark, 4@5c.

BEESWAX.—24@25c.

CLEMONS, CLOON & CO., cor. 4th & Walnut.

MILWAUKEE.

HONEY.—The market is fairly supplied with honey, trade is dull, prices depressed, and the outlook is for a large production. Already some is being peddled about the city by the producers themselves, demoralizing the prices, which should not be done. We quote: Choice white in 1-pound sections, 14@15c.; 2-lb. 13@15c. Dark honey not wanted. Extracted, white, in barrels and kegs, 5@7c.; in tin cans, 6@8c.; dark in barrels or kegs, 4@6c.

BEESWAX.—25c.

A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO.

HONEY.—It has been extensively handled the last week, and prices are firmer. The supplies of choice honey are by no means excessive in this city, and all lots of choice extracted honey find ready buyers at about 4c. Owners are reserved and refuse to sell under 4c. In the country, as prices seem low. We quote 3@4c. for extracted honey, and 7@8c. for comb honey, according to quality.

BEESWAX.—It finds buyers at lower prices—20 to 22c. for choice.

SCHACHT & LEMCKE, 122-124 Davis St.

HONEY.—Prices are so low that honey-producers are holding back their product; still the market is well supplied. We quote: Comb, extra white, 8@10c.; off grades, 6@7c.; extracted white, 4@4.5c.; amber, 3@3.5c.; dark, 3c.

BEESWAX.—22@23c.

O. B. SMITH & CO., 423 Front Street.

ST. LOUIS.

HONEY.—Choice comb, 10@12c.; latter price is for choice white clover. Strained, in barrels, 3@4c. Extra fancy of bright color and in No. 1 packages, 1/4 advance on above prices. Extracted in barrels, 4@5.5c.; in cans 6@7c.

BEESWAX.—Firm at 22c. for prime.

D. G. TUTT & CO., Commercial St.



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 At One Dollar a Year.

ALFRED H. NEWMAN,
 BUSINESS MANAGER.

Special Notices.

To Correspondents.—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

Dr. Miller's Book, "A Year Among the Bees," and the BEE JOURNAL for one year, we will club for \$1.50.

A New Crate to hold one dozen one-pound sections of honey.—It has a strip of glass on each side, to allow the honey to be seen. It is a light and attractive package. As it holds but one tier of sections, no damage from the drippings from an upper tier can occur. We can furnish the material, ready to nail, for 9 cts. per crate. Glass 1½c. per light, extra.

Bees for Sale.—We offer to sell a few strong colonies of Italian bees, in ten-frame Simplicity hives, at \$6.00 each.

Red Labels for one-pound pails of honey, size 3x4½ inches.—We have just gotten up a lot of these Labels, and can supply them at the following prices: 100 for \$1.00; 250 for \$1.50; 500 for \$2.00; 1,000 for \$3.00; all with name and address of apiarist printed on them—by mail, postpaid.

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. As each separate fiber extends the whole length of the handle as well as the brush, they are almost indestructible. When they become sticky with honey, they can be washed, and when dry, are as good as ever. The low price at which they are sold, enables any bee-keeper to have six or more of them, so as to always have one handy. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

System and Success.

All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and commence to use it. The prices are reduced, as follows:

For 50 colonies (120 pages).....	\$1 00
" 100 colonies (220 pages).....	1 25
" 200 colonies (420 pages).....	1 50

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable.

Simmins' Non-Swarming System is the title of a new English bee-book. The author claims that it will inaugurate a "new era in modern bee-keeping," and states that "it is based upon purely natural principles, and is the only system that can ever be relied upon, because no other condition exists in the economy of the hive that can be applied to bring about the desired result—a total absence of any desire to swarm." It contains 64 pages; is well printed and illustrated. Price 50 cents. It can now be obtained at this office.

When Renewing your subscription please try to get your neighbor who keeps bees to join with you in taking the BEE JOURNAL. It is now so cheap that no one can afford to do without it. We will present a **Binder** for the BEE JOURNAL to any one sending us four subscriptions—with \$4.00—direct to this office. It will pay any one to devote a few hours, to get subscribers.

Sweet Clover, or Melilotus Alba, is almost the only resource for honey now, on account of the late severe July drouth. If the seed is planted in September, it will come up this Fall and bloom next year, in its second season.

We have a large lot of this seed on hand, and offer it at the following **Reduced Prices**, by express or freight:

One pound.....	\$0 20
" peck—15 lbs.....	2 25
" bushel—60 lbs.....	7 00
" sack—80 lbs.....	8 00

It will pay to buy it by the sack and sell it again in smaller quantities.

If you want a chance to make some money, and provide pasturage for the bees during the Fall months, this is your opportunity!

Italian Queens.—We have a few untested queens which we can send by return mail. Three for \$2.75; six for \$5.00; twelve for \$9.00. For Tested, double the prices.

When Marketing Extracted Honey, it is a sad blunder to use barrels holding from 300 to 500 pounds—they are too large to be desirable for the trade, too bulky to be handled with care in transportation, and too dear to be lucrative to the producer, for honey put up in such large barrels is subject to a discount of one cent per pound, because of the difficulty in disposing of it without repacking and dividing into smaller lots.

The next annual meeting of the Michigan State Bee-Keepers' Association will be held in Ypsilanti, Mich., on Dec. 1 and 2, 1886.

H. D. CUTTING, Sec.

QUEENS for SALE or EXCHANGE.

"Jerseyville, Ills., July 23, 1886.—Mr. James T. Wilson: Dear Sir—The 55 Italian Queens that I bought of you last year were all purely mated except one. The most of them were Choice Queens, and just as good as higher priced ones, for general purposes.—E. Armstrong."
 One Queen, 75c.; 6 for \$4.00. Will work as well on red clover as anybody's Queens. I will exchange Queens for Honey, Alsike Clover Seed or Poland-China Hogs.
 All Queens sent by Return Mail, unless notified to the contrary. Address,
 35A1t J. T. WILSON, Nicholasville, Ky.

THE CHAPMAN HONEY-PLANT.

It has not been my aim to say much about, or offer any seed of my Honey-Plant for sale, till after the report of the committee appointed by the North American Bee-Keepers' Society to examine and determine its value as a Honey-Plant. The committee met at my place on July 28 (all but Mr. Manum, of Vt., who was prevented by unforeseen circumstances). The committee present was A. I. Root, of Medina, O.; L. C. Root, of Mohawk, N. Y.; and N. W. McLain, of Aurora, Ills. They will report to the annual meeting of the Society at Indianapolis, Ind., Oct. 12-14, 1886. Since the meeting of the committee at my place, members of it have written so favorably of the Plant in the bee-papers that I have received a large number of letters of inquiry, requiring much of my time to answer. I now wish to say that I have no seed but the present season's growth, which will not be ready to send out until about Oct. 20. After the report of the committee at Indianapolis, I will advertise the seed for sale in all the leading bee-papers. It will be sold in half-ounce, ounce, 2-ounce and four-ounce packages. The prices will then be determined.

H. CHAPMAN,

35A1t VERSAILLES, Catt. Co., N. Y.

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Golden Italians.

WARRANTED Queens 75 cts. each; per dozen, \$8.00. All Queens sent out prior to Aug. 10 will be reared from cells built by natural swarming. Queens shipped next day after receiving order, if so desired. Should any prove to have misnamed, they will be replaced with a nice Tested Queen of 1886 rearing. Address,

JAMES WOOD, North Prescott, Mass. 20A20t

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Read what J. I. PARENT, of CHARLTON, N. Y., says:—"We cut with one of your Combined Machines, last winter, 500 chaff hives with 7-in. cap, 100 honey-racks, 500 broad frames, 2,000 honey-boxes and a great deal of other work. This winter we have double the amount of bee-hives, etc., to make and we expect to do it with this Saw. It will do all you say it will." Catalogue and Price-List

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1. The Widow Hedcott Papers. This is the book over which your grandmothers laughed till they cried, and it is just as funny to-day as it ever was.
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